

Project Tracking No.:

IOWAccess Advisory Council**Return on Investment (ROI) Program Funding Application**

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FINAL AUDIT REQUIRED: The Enterprise Quality Assurance Office of the Information Technology Enterprise is required to perform post implementation outcome audits for all Pooled Technology funded projects and may perform audits on other projects.

This is an IOWAccess Revolving Fund Request.

Amount of funding requested: Currently:\$ 550,000

Anticipated total:\$ 550,000

Section I: Proposal

Date:	January 2, 2008
Agency Name:	Iowa Dental Board, Iowa Board of Medicine, Iowa Nursing Board
Project Name:	Healthcare Provider Licensure Database
Agency Manager:	Jennifer Hart, IDB Amy Van Maanen, IBM Margaret Armagost, IBON
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Executive Sponsor (Agency Director or Designee):	Connie Price, Executive Director, IDB Ann Mowery, Executive Director, IBM Lorinda Inman, Executive Director, IBON
IOWAccess Project Process Phase:	<input type="checkbox"/> Scope Analysis <input type="checkbox"/> Design <input checked="" type="checkbox"/> Implementation

A. Project Summary: Describe the nature and use of the proposed project, including what is to be accomplished, how it will be accomplished, and what the costs and benefits will be.

Response: The proposed project will replace the existing licensure databases of the Iowa Dental Board, Iowa Board of Medicine, and Iowa Board of Nursing with a configurable-off-the-shelf health provider licensing and compliance database, which would be scaleable to an enterprise-wide solution, capable of offering new and enhanced services to licensees and consumers. The new database will offer the following new services and enhancements:

- 1) online submission of all dental, medical, and nursing license, permit, and registration applications, including the ability to track the status of an application online;
- 2) online renewal of licenses and registrations for Iowa dentists, dental hygienists, and dental assistants;

- 3) online information available to the public about licensees, e.g., education and training, specialty, office locations, and disciplinary status;
- 4) online verification of licenses, permits, and registration of dental providers;
- 5) e-payment capability for all board financial transactions with integration to the database;
- 6) subscription services for facilities and employers to track changes in licensure status of providers, including notification of disciplinary actions taken;
- 7) online access to copies of all public disciplinary actions taken against licensees;
- 8) online submission of continuing education provider records, requests, and fees;
- 9) electronic submission of monitoring reports of probationers and impaired practitioner cases (about 1,700 reports per quarter); and
- 10) electronic submission of complaints and investigative information, integrated to the database.

The three boards will work to jointly procure a replacement database with a configurable off-the-shelf (COTS) product that will enhance services to their licensees and the citizens of Iowa and increase board efficiency. The boards will issue a joint request for proposal (RFP) to migrate the existing databases and replace them with a new COTS database. The boards will jointly evaluate responses to the RFP and award the project to the vendor that is able to provide services in the most cost effective manner. The cost of the proposal includes migrating the existing database, purchasing a new COTS database, configuring the database to each agency's unique needs, and providing initial training and support. The boards will contribute the cost of new hardware, employee salaries, and on-going support and maintenance fees after implementation.

Licensees, citizens, employers such as hospitals and clinics, and applicants will benefit from the availability of information and services online 24 hours per day seven days per week. Each board will also benefit by decreasing the amount of staff time spent on opening mail, processing checks and reports, and entering data.

B. Strategic Plan: How does the proposed project fit into the strategic plan of the requesting agency?

Response: The mission of the boards is to protect public health, safety, and welfare by ensuring all Iowans receive safe, competent health care from licensed providers. Each of the boards is responsible for setting standards for licensure, examination, and license renewal. The boards also are charged with investigating complaints on their health care providers, imposing discipline when required, and monitoring the compliance of providers with board rules and orders. The boards verify the licensure status of health care providers to insurers, health care facilities, other licensing boards, and the public. The boards also set standards for continuing education, which is required to renew a license. The boards also monitor the recovery and rehabilitation of health care providers with impairments to ensure they are safe to practice.

The Iowa Dental Board is responsible for licensing & investigating dentists, dental hygienists, and dental assistants in the state. The Iowa Board of Medicine licenses and investigates physicians and acupuncturists. The Iowa Board of Nursing licenses and investigates registered nurses, licensed practical nurses, and advanced registered nurse practitioners.

The proposed project will fit with the strategic plan of each agency by helping them to fulfill their mission and increase the ability of consumers to find information about their healthcare provider. The proposed project will enable the boards to provide enhanced services to all potential licensees by enabling providers to apply for a license and check the status of a license application online. By expediting license applications, healthcare

providers will be able to go to work sooner, resulting in better access for the public to health care and taxable income generated for the state's General Fund.

C. Current Technology: Provide a summary of the technology used by the current system. How does the proposed project impact the agency's technological direction? Are programming elements consistent with a Service Oriented Architecture (SOA) approach? Are programming elements consistent with existing enterprise standards?

Response: For approximately 10 years, the three boards have used a database application called LicenSure, which was written by the Iowa Foundation for Medical Care (IFMC). The LicenSure program is client-based and is written in PowerBuilder housed on a Sybase SQL server running on a Win 2003 operating system. Each board uses a separate, customized database. The dental and medicine boards share a file server, while the nursing board has its own database server. IFMC announced on January 1, 2006, that they would cease to support all of the Iowa LicenSure databases effective July 1, 2006. Since that time, the boards have been without on-going support and maintenance for their databases. The boards have been unable to modify or enhance their database structure or add new services. While the nursing board located a vendor, NIC, in response to an RFP issued last year to seek specific system modifications, NIC does not have the depth of programmers (1 person) to rely on nor is the current program compliant with enterprise standards, as it was created prior to the adoption of the standard. A database that utilizes more current technology and software and one that can be configured by staff would also be preferable.

Each of the LicenSure databases used by the three boards provides basic license information, renewal capabilities, reports, and some disciplinary information. However, the functions and capability of each database vary greatly from board to board. The medicine and nursing boards provide online license renewal, while the dental board database does not. The dental and medicine board database tracks some financial information, while the nursing board database does not. The dental and medicine boards also rely heavily on the database to track complaint and disciplinary information, while the nursing board lacks a full disciplinary component. None of the boards have online license applications or the services identified in section A.

The proposed project will enable the boards to update and expand existing technology. The project will increase the public's access to information and services. Other agencies, such as hospitals and clinics, will have access to licensee information that they have requested that was not available to them in the past. The project will allow the boards to provide comparable services like those offered by licensing agencies in other states. The proposed project would also be scalable to an enterprise-wide solution should the state decide to move in that direction. The proposed project would also make the boards compliant with enterprise standards for database management systems. The new database application will be required to be in a .net or java environment. The use of a COTS product will enable the boards to become more technologically independent while expanding the services offered.

D. Statutory or Other Requirements

Is this project or expenditure necessary for compliance with a Federal law, rule, or order?

YES (If "Yes", cite the specific Federal law, rule or order, with a short explanation of how this project is impacted by it.)

Explanation:

N/A

Is this project or expenditure required by state law, rule or order?

YES (If "YES", cite the specific state law, rule or order, with a short explanation of how this project is impacted by it.)

Explanation:

The boards are required by state law (Iowa Code chapter 147 and 272C) to license healthcare providers, renew their licenses, require continuing education, provide information about license status to citizens and others, and investigate complaints against licensed providers.

Does this project or expenditure meet a health, safety or security requirement?

YES (If "YES", explain.)

Explanation:

The boards mission is to protect public health, safety, and welfare. The boards carry out this mission by setting minimum qualifications for licensure, issuing licenses to qualified applicants, setting standards, investigating complaints, disciplining providers who violate these health, safety, and welfare requirements, and monitoring licensees who practice under board-imposed restrictions. The proposed project will enable the boards to license applicants in a more efficient manner, allow consumers to file complaints online, and provide timely, accurate, and complete information about providers who have been disciplined by the board.

Is this project or expenditure necessary for compliance with an enterprise technology standard?

YES (If "YES", cite the specific standard.)

Explanation:

Standard S-004-001 for Database Management Systems requires the following:

Products are to be in compliance with ODBC and ANSI SQL92 standards.

Server/PC Database Products:

Tier 1: Enterprise and Large-scale systems with high capacity, complex design and/or high volume transactional requirements. Preferred Products: Oracle , Teradata, DB2 Universal Database

Tier 2: Mid-scale systems with moderate capacity, design complexity, and/or transactional volume requirements. Typically agency-based systems. Preferred Products: Oracle, Microsoft SQL Server, DB2 Universal Database

The boards existing database system utilizes Sybase SQL and not a Microsoft SQL server. The proposed project will be compliant with Standard S-004-001.

[This section to be scored by application evaluator.]

Evaluation (15 Points Maximum)

If the answer to these criteria is "no," the point value is zero (0). Depending upon how directly a qualifying project or expenditure may relate to a particular requirement (federal mandate, state mandate, health-safety-security issue, or compliance with an enterprise technology standard), or satisfies more than one requirement (e.g. it is mandated by state and federal law and fulfills a health and safety mandate), 1-15 points awarded.



E. Impact on Iowa's Citizens

1. Project Participants - **List the project participants (i.e. single agency, multiple agencies, State government enterprise, citizens, associations, or businesses, other levels of government, etc.) and provide commentary concerning the nature of**

participant involvement. Be sure to specify who and how many direct users the system will impact. Also specify whether the system will be of use to other interested parties: who they may be, how many people are estimated, and how they will use the system.

Response: Direct project participants include staff of the Iowa Dental Board (7), Iowa Board of Medicine (22), and Iowa Board of Nursing (19), as well as licensees (about 73,000), hospitals, clinics and other healthcare facilities, and citizens looking for information about health care providers. The Iowa Dental Board is responsible for licensing and investigating dentists, dental hygienists, and dental assistants in the state, as well as resident and faculty licensees. The dental board also issues permits to administer local anesthesia, conscious sedation, and general anesthesia. The Iowa Board of Medicine licenses and investigates physicians and acupuncturists. The Iowa Board of Nursing licenses and investigates registered nurses, licensed practical nurses, and advanced registered nurse practitioners.

There are approximately 7,600 dentists, dental hygienists, dental assistants, faculty, and resident licensees, as well as approximately 1,200 permit holders. There are approximately 11,000 physicians and 35 acupuncturists. The nursing board has approximately 53,000 active licensees. The boards also manage another 135,000 inactive or lapsed licensees.

All of the boards licensees will use the system to: apply for all types of licensure, submit payments online, monitor the status of an application, be reminded of the need to renew a license, renew online with immediate confirmation, change address, request duplicate licenses and other services with electronic payment, receive news updates from the board, receive emergency direction, if needed, and notify licensees of new policies and other critical information.

In addition, the dental and medicine board issues resident licensees to about 800 individuals. Those entering resident training programs would apply for licensure online and request changes in status online. The directors of the residency programs would be able to use the system to submit required annual reports on residents.

Licensees who are being monitored for disciplinary reasons or by the impaired practitioner programs would benefit by being able to: submit quarterly reports online; submit quarterly monitoring fees electronically; and remind treatment programs, aftercare providers, therapists, work site monitors and others when quarterly reports are due and allow online submission of the reports. Together, the three boards monitor approximately 440 licensees. With the online system, more than 2,000 reports would be submitted quarterly; all of these reports are now submitted by mail and logged manually.

Healthcare facilities, employers, insurers, and other third party payors would benefit from the system by allowing these entities to: utilize online credentialing to check the status of the processing on a license application, the status of a license once issued, and provide online verification of a person's license and disciplinary history; and subscribe to a board notification system that would inform them when one of their licensees or employees has a change in license status or has been subject to board disciplinary action.

There are approximately 115 Iowa hospitals, several thousand healthcare facilities and clinics, and third party payers, like Medicare, Medicaid, and others who insure patients in Iowa. In addition, each board interacts with national associations and credentialing administrators, as well as their counterpart agencies in each of the 50 states.

The general public would have ready access to up-to-date information on healthcare providers, including location, education and training, specialty, license status, specifics about disciplinary actions, and the ability to file complaints online.

2. Service Improvements - Summarize the extent to which the project or expenditure improves service to Iowa citizens or within State government. Included would be such items as improving the quality of life, reducing the government hassle factor, providing enhanced services, improving work processes, etc.

Response: The proposed project will allow the boards to significantly improve the services offered to their licensees and citizens. The project will also increase staff efficiency and streamline work processes.

Improving the quality of life:

- New licensees will be able to go to work sooner because of an expedited licensure process. There is a significant access to care problem in Iowa. Anything that can be done to expedite the processing and reduce the hassle of applying for a healthcare license will assist in this area. If licensees can go to work sooner, their taxable income will add to the General Fund.
- The public will be able to find up-to-date information about their healthcare providers, including location, education and training, and licensure status.

Reducing government hassle factor:

- Applicants, employers and third-party credentialers, like insurance companies, will be able to discern the status of a licensure application without interacting with board staff. They will be able to verify information and download disciplinary documents 24-hours a day, rather than during the board's normal business hours.
- Employers like hospitals and clinics will be able to subscribe to a notification service to inform them of when providers or employees are due to renew a license. They can also be notified of changes in licensure status, including when board disciplinary action is taken. These individuals must now wait to be notified by staff of changes, call in periodically, or sort through discipline information on all licensees.
- The boards offer many services that can only be purchased currently through the mail with a paper request and check. These services include license certifications, requests for duplicate licenses or certificates, address and name changes, requests for mailing lists and rosters, and requests for copies of public records. The proposed project will allow individuals to submit these requests electronically, pay electronically, and download the information immediately.
- The dental board cannot process online license renewals. The current process requires mailing paper renewals, having all licensees return the paper renewal form with a check, and having staff manually enter all renewals. Approximately 10-15 percent of renewals received must be sent back to individuals because the form is incomplete or information is missing, or the fee is missing or incorrect. Allowing individuals to renew online will significantly decrease the hassle, time, and expense of having to return renewals due to simple errors that can be caught in an online renewal system. In addition, the board will be relieved of opening and hand processing thousands of checks and renewal forms. Data entry will shift from the staff to the licensee.
- Citizens who are applying for a license from the boards must now submit that information via regular mail. Staff must then enter this information manually to the database. Letters must be sent to applicants informing them of the status of their application and other documents that may be needed. Applicants wanting to find out about the status of their license must call the board office and wait for staff to retrieve the paper application and review it. The proposed project will enable applicants to apply for their license online, automatically update the database, and then allow these applicants the ability to log back

onto the system at any time to determine the status of their license application and any other documents that are still outstanding. Applicants will not have to call during normal business hours and wait for staff to update them.

Providing enhanced services:

The following new services would be offered to licensees and citizens by implementing the proposed project:

- 1) online license applications for all three boards, including the ability to track the status of an application online;
- 2) online renewal for Iowa dentists, dental hygienists, and dental assistants;
- 3) online information available to the public about licensees, e.g., education and training, specialty, office locations, and disciplinary status;
- 4) online verification of licenses, permits, and registration of dental providers;
- 5) e-payment capability for all board financial transactions with integration to the database;
- 6) subscription services to track changes in licensure status of providers, including disciplinary actions taken;
- 7) online access to copies of all public disciplinary actions taken against licensees;
- 8) online submission of continuing education provider records, requests, and fees;
- 9) electronic submission of monitoring reports of probationers and impaired practitioners; and
- 10) electronic submission of complaints and investigative information, integrated to the database.

Improving work processes:

- Mail, check, report processing, and data entry will be reduced with online renewals (dental), online applications for all boards, electronic payments for all types of requests, and online submission of quarterly reports, etc.
- Staff review of online applications will be easier with typed, rather than hand written information. In addition, with paper applications, it is easy for applicants to skip questions and overlook requested information. Some questions require applicants to submit additional information, like explanations for malpractice suits. These common errors require staff to contact the applicant for the required information before review can take place. An online application can notify applicants immediately of these issues and reduce delays.
- Utilizing an online application shifts data entry from staff to the applicant.
- Address changes can be entered online by the licensee, instead of the current process that requires licensees of the dental and medicine boards to submit changes to the board office and have staff manually enter the information.
- With application status reports online, staff will not need to communicate as frequently with applicants. This will significantly reduce the amount of calls that staff receives to check on the status of applications.
- Licensees subject to monitoring will have reminders sent electronically that reports are due and these individuals can submit the reports and monitoring fees online. Staff will be notified electronically of missing reports, reducing the need to manually go through files.
- Licensure and disciplinary documents can be integrated into the proposed database, reducing the need for staff to pull the information from paper sources or electronic sources that are not currently integrated.
- Workflow tracking will be available to review licensure and discipline to assist in determining where problems are with workflow and direct staff accordingly.

3. Citizen Impact – Summarize how the project leads to a more informed citizenry, facilitates accountability, and encourages participatory democracy. If this is an extension of

another project, what has been the adoption rate of Iowa’s citizens or government employees with the preceding project?

Response: The proposed project will increase citizens’ access to information about their healthcare providers. Citizens will have up-to-date information about licensees upon which to make a choice of healthcare providers. For the dental and medicine boards, currently citizens must track down the board’s telephone number and call during normal business hours (8 a.m. to 4:30 p.m., Monday through Friday) to find whether their provider has a current license, is subject to probationary conditions, or has ever been disciplined. During busy times or periods when staff is out ill, delays can occur in returning phone calls, reaching people, or coordinating information between the licensure and compliance sections of the board’s office. The proposed project will enable citizens to go online and find out immediately details about a provider, 24/7. In addition, for the medicine board, large volume users of the system (insurance companies, etc.) are currently restricted from using online verification and the new system will allow these users unlimited access to online verifications.

The medicine and nursing boards have had tremendous success with their online license renewal system, with over 90 percent of licensees taking advantage of this option. The dental board expects a similar adoption rate if it offers online renewal and all of the boards expect a similarly adoption rate with online license applications.

4. Public Health and/or Safety – Explain requirements or impact on the health and safety of the public.

Response: The board’s mission is to protect public health, safety, and welfare. The boards carry out this mission by setting minimum qualifications for licensure, issuing licenses to qualified applicants, setting standards, investigating complaints, and disciplining providers who violate these health, safety, and welfare requirements. The proposed project will enable the boards to license providers more efficiently, allow consumers to file complaints online, and provide timely, accurate, and complete information about providers who have been disciplined by the board. The boards also each have field staff to investigate complaints against licensees. Having a Web-based system would allow investigators easy access to database information. The proposed project would eliminate the need to mail documents to field investigators, as they would have secure online access allowing them to initiate investigations sooner, therefore enhancing the public’s health and safety. The new database would also allow the boards to utilize e-mail contact information that could be used to convey critical public health and safety information to licensees in a time of disaster, pandemic, or other emergency.

<p>[This section to be scored by application evaluator.] Evaluation (15 Points Maximum)</p> <ul style="list-style-type: none"> Minimally directly impacts Iowa citizens (0-5 points). Moderately directly impacts Iowa citizens (6-10 points). Significantly directly impacts Iowa citizens (11-15 points). 	
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<p>[This section to be scored by application evaluator.] Evaluation (10 Points Maximum)</p> <ul style="list-style-type: none"> Minimally improves customer service (0-3 points). 	
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- Moderately improves customer service (4-6 points).
- Significantly improves customer service (7-10 points).

F. Process Reengineering

Provide a pre-project or pre-expenditure (before implementation) description of the impacted system or process. Be sure to include the procedures used to administer the impacted system or process and how citizens interact with the current system.

Response:

A. Renewals (dental board)

The dental board renews about half of the active licenses each year. Currently staff must print renewals using a labor-intensive process. First, a database query is run to provide a list of all licensees due to renew. Next, data is pulled from those licensees who need a renewal and exported. A renewal form is created in another program and a merge file is created with the required fields. Files are merged to print renewals for each licensee. These steps are repeated for each of the different profession types the board licenses. Next, staff must go into the database to manually change the license status for everyone that was printed a renewal. Forms are collated and mailed. Licensees mail the forms back to the board where they are manually reviewed and entered into the database. Fees can only be submitted with a mailed check. Renewals that are incomplete, filled out incorrectly, or have a wrong fee must be mailed back. Renewal cards are printed and mailed after processing. The dental board must hire one or two temporary staff each renewal cycle to assist in mailing and processing renewals. The medicine and nursing boards already have online renewal.

B. Applications for initial licensure(dental, medicine, and nursing boards)

Applicants must request a mailed license application or download the license application from the board's website. The applicant fills out the application by typing or hand-writing information onto the form. For the medicine board, applicants using a computer to type their information onto the application must print off each page after completing it to avoid losing information. Applicants then mail the application to the board.

Hundreds of applications can be received in one day. Staff at each board must enter basic identifying information from the application onto the database to deposit the application fee. It can take staff several hours to open the mail and enter minimal information onto the database and cash list. The boards also require a criminal background check of applicants. Following the deposit of the daily cash list, the staff person processing the criminal background checks makes a copy of the front page of the application, which contains the applicants name and contact information to send out the criminal background check packet. Staff mailing these packets must manually address each one. In addition, all dental applicants are required to sit for a jurisprudence examination. Once an application has been received, staff must then create a different verification in Word that authorizes the applicant to sit for the jurisprudence examination, and mail that letter to the applicant.

Staff must also then create a file folder or microfilm record for the applicant, complete additional data entry, and generate additional reports. In the case of the medicine board, this process can take one to four days before the application can even be reviewed. Once initial data entry and letters have been sent, review of the application takes place to ensure accurate information has been received. Submission of supporting primary source documentation is required to verify reported information. Staff reviews the application and sends a written notice either by e-mail or regular mail to the applicant to update them on the application status. The applicant must respond to the notice and submit requested

information. It can often take over a month for an applicant to provide the requested items to the reviewer. During this period, numerous e-mails and phone calls are received from the applicant, the potential worksite, or the hiring agency, requesting an update on the application status. During medicine board's peak time, for example, staff can receive up to 35 contacts each day to check on the status of an application.

C. Verifications (dental and medicine boards)

Providers wanting to obtain a license in another state must request a verification of their Iowa license be sent to that state. Requests are mailed to the board along with the required fee. Staff opening the mail must also enter the fee received onto the cash list. Once the money is deposited, the request goes to the staff person that processes the verifications. This person must enter each request onto the database to generate a verification letter. Before the letters are mailed, information about the request is logged in an Excel spreadsheet as the current database does not track this information. Processing a verification can take anywhere from three to seven days. In the case of the dental board, the only way to verify a license is to call the board office during normal business hours. The board does not have any other telephone or online verification system.

D. Criminal history background checks (all boards)

Staff responsible for completing the Department of Criminal Investigation (DCI) online criminal background check and the Federal Bureau of Investigations (FBI) criminal background check must track each step of this process, such as when a packet was sent/received, completion dates of DCI and FBI checks, etc. in an Excel spreadsheet or logged in a free-form text field in the database within the applicant's record. The steps recorded in the database are also logged in an Excel spreadsheet to reconcile the bills from DCI and FBI.

E. Annual Residency Director's Report (medicine & dental boards)

Each year residency program directors are required to submit a report to the board on the status of the residents. Staff e-mails a form to the directors to complete. The program directors complete the form, which includes entering the names of their residents and answering questions about each one, and return via e-mail, fax, or regular mail.

F. Quarterly reports & fees (all boards)

Licensees who are being monitored must mail quarterly reports on their probation or monitoring terms. Some of these licensees also have aftercare providers, counselors, and worksite monitors who must also mail quarterly reports to the board office. Some licensees must also mail a quarterly monitoring fee to the board office. Staff must manually track the persons who are required to submit reports, status, and manually enter fees.

G. Other Services (all boards)

All services the boards offer that require a fee, such as duplicate renewal cards, data lists, etc. must come through the mail with a check or money order. Mailed requests are routed to the appropriate staff member who must manually enter the information to the database and process the request.

Provide a post-project or post-expenditure (after implementation) description of the impacted system or process. Be sure to include the procedures used to administer the impacted system or process and how citizens will interact with the proposed system. In particular, note if the project or expenditure makes use of information technology in reengineering traditional government processes.

Response:

A. Renewals (dental board)

Licensees, permit holders, and registrants will be able to log onto the system and renew their license, permit, or registration online. The licensees will update their information electronically and submit payments electronically. Receipts can be printed by the individual. Licensees of all boards could also expand the renewals offered to include inactive licensees and other license types.

B. Applications (dental, medicine, and nursing boards)

Applicants will complete and submit the application online. The online application will save information entered onto the application if a person is unable to complete the form at one time. The applicant will pay the fee electronically. Time spent opening the mail will be reduced due to electronic submission of the applications, in addition to not having to manually enter fees onto the cash list. Staff responsible for mailing out the criminal background check packets will no longer need to photocopy the front page of an application and manually type an address label for the packet. The new database will generate labels for submitted applications. This improvement will move the application directly from electronic submission to the person setting up the file. For the dental board, applicants can immediately print out their authorization to take the jurisprudence exam, eliminating the need to send a separate letter to that individual.

Staff setting up the file will also no longer need to enter data from the application into the database because the online application will populate the database. The new database will allow staff to specifically identify items needed to complete the application, so an applicant can check the status online, which will greatly reduce the amount of time spent responding to inquiries and allow staff more time to review applications.

C. Verifications (dental and medicine boards)

The new system will allow a licensee to request verifications online with e-payment. Staff will be able to automate the process. One to two hundred verification requests are received a month by the medicine board alone. This will also reduce the amount of mail that is opened each day and the entry of the fees onto the cash list. Most importantly, this benefits the provider by being able to request information online and having the verification letter sent within a day of the request. Providers that do not require the board seal on a verification can verify the information immediately online and download any disciplinary documents needed.

D. Criminal history background checks (all boards)

The new database will provide one location where tracking of criminal background checks is done, eliminating entry of the same information in different locations and meeting the needs of multiple staff. Applicants can also view the status of the background check online along with the status of the rest of their application.

E. Annual Residency Director's Report (medicine & dental boards)

Residency directors will be able to report information online and save data entry time.

F. Quarterly reports & fees (all boards)

Licensees and others can submit reports and fees electronically. Staff will be automatically notified of individuals who have not submitted their fee or report. Manual data entry by staff of information and fees will be eliminated.

G. Other Services (all boards)

Requests can be made online and services can be paid for electronically, improving access and efficiency. Fees and requests will automatically populate the database, eliminating manual entry of these items.

[This section to be scored by application evaluator.]
Evaluation (10 Points Maximum)

- Minimal use of information technology to reengineer government processes (0-3 points).
- Moderate use of information technology to reengineer government processes (4-6 points).
- Significant use of information technology to reengineer government processes (7-10).



G. Timeline

Provide a projected timeline for this project. Include such items as **start date**, planning, database design, coding, implementation, testing, conversion, parallel installation, and date of final release. Also include the parties responsible for each item.

Response: The board issued a Request for Information on June 7, 2007, to solicit information about possible products that could replace the existing database and provide the enhanced services the boards need. Vendor presentations in response to the RFI were made in June and July 2007. The boards requested approval from the TGB to issue a RFP in September 2007. The TGB approved the request and authorized the boards to issue a RFP. The boards are currently writing the RFP and hope to issue in early 2008, with a closing date for the RFP by April 2008. Evaluation of proposals and announcement of successful vendor is anticipated by June 2008. Contract would begin in July 2008, with a goal of contract completion by June 2009. Based on information gathered by the boards during the ROI process, a one-year implementation schedule was deemed very reasonable by potential vendors.

[This section to be scored by application evaluator.]

Evaluation (10 Points Maximum)

- The timeline contains several problem areas (0-3 points).
- The timeline seems reasonable with few problem areas (4-6 points).
- The timeline seems reasonable with no problem areas (7-10).



H. Funding Requirements

On a fiscal year basis, enter the estimated cost by funding source: Be sure to include developmental costs and ongoing costs, such as those for hosting the site, maintenance, upgrades.

	FY08		FY09		FY10	
	Cost(\$)	% Total Cost	Cost(\$)	% Total Cost	Cost(\$)	% Total Cost
State General Fund	\$0	0%	\$0	0%	\$0	0%
Pooled Tech. Fund /IOWAccess Fund	\$0	0%	\$550,000	88%	\$0	0%
Federal Funds	\$0	0%	\$0	0%	\$0	0%
Local Gov. Funds	\$0	0%	\$0	0%	\$0	0%
Grant or Private Funds	\$0	0%	\$0	0%	\$0	0%
Other Funds (Board revenue)	\$0	0%	\$75,000	12%	\$49,000	100%
Total Project Cost	\$0	0%	\$625,000	100%	\$49,000	100%
Non-Pooled Tech. Total	\$0	0%	\$75,000	12%	\$49,000	100%

[This section to be scored by application evaluator.]

Evaluation (10 Points Maximum)

- The funding request contains questionable items (0-3 points).
- The funding request seems reasonable with few questionable items (4-6 points).
- The funding request seems reasonable with no problem areas (7-10).

**I. Scope**

Is this project the first part of a future, larger project?

- YES (If "YES", explain.) NO, it is a stand-alone project.

Explanation:

However, many of the vendor solutions proposed for the boards would be scaleable to an enterprise wide solution should the state decide to move in that direction.

Is this project a continuation of a previously begun project?

- YES (If "YES", explain.)

Explanation:

This will be a new project. However, some additional background information may be helpful. The boards have been without vendor support of their original LicenSure application since July 1, 2006. Initially, the boards did not act to secure a replacement database because of their belief that Iowa Interactive, in conjunction with the state's ITE department, was developing enterprise software. The medicine board began working with Iowa Interactive in the Fall of 2004 to develop a new database and web-based software that would replace the LicenSure system. The dental board was also approached by Iowa Interactive to develop a similar database. Iowa Interactive gave the dental board multiple assurances that they would be able to develop a database as soon as they finished work on the medicine board database. In May 2007, Iowa Interactive notified the dental board that they would not be able to develop a database for the dental board as it was beyond the scope of Iowa Interactive's business. In June 2007, after almost three years of work without a functioning model and with no anticipated delivery date, the medicine board suspended work with Iowa Interactive and decided it may be more prudent to utilize an off-the-shelf database that could be fully implemented in less than one year and that would be in common use with the other licensing boards. The proposed project will allow the boards to secure the replacement database while significantly enhancing the services offered to licensees and citizens.

[This section to be scored by application evaluator.]**Evaluation (10 Points Maximum)**

- This is the first year of a multi-year project / expenditure or project / expenditure duration is one year (0-5 points)
- The project / expenditure is of a multi-year nature and each annual component produces a definable and stand-alone outcome, result or product (2-8 points).
- This is beyond the first year of a multi-year project / expenditure (6-10 points)



The last part of this criteria involves rating the extent to which a project or expenditure is at an advanced stage of implementation and termination of the

project / expenditure would waste previously invested resources.

J. Source of Funds

On a fiscal year basis, how much of the total project cost (\$ amount and %) would be absorbed by your agency from non-Pooled Technology and/or IOWAccess funds? If desired, provide additional comment / response below.

Response: Of the total project cost of \$625,000, the boards will provide \$75,000 or 12% of the project cost by purchasing all hardware needed, ITE services to connect and secure the server, as well as funding of current employee salaries for project testing, implementation, and training. After implementation, the boards will cover 100% of ongoing license and maintenance fees.

[This section to be scored by application evaluator.]

Evaluation (5 Points Maximum)

- 0% (0 points)
- 1%-12% (1 point)
- 13%-25% (2 points)
- 25%-38% (3 points)
- 39%-50% (4 points)
- Over 50% (5 points)

Section II: Financial Analysis

A. Project Budget Table

It is necessary to estimate and assign a useful life figure to each cost identified in the project budget. Useful life is the amount of time that project related equipment, products, or services are utilized before they are updated or replaced. In general, the useful life of hardware is three (3) years and the useful life of software is four (4) years. Depending upon the nature of the expense, the useful life for other project costs will vary between one (1) and four (4) years. On an exception basis, the useful life of individual project elements or the project as a whole may exceed four (4) years. Additionally, the ROI calculation must include all new annual ongoing costs that are project related.

The Total Annual Prorated Cost (State Share) will be calculated based on the following equation:

$$\left[\left(\frac{\text{Budget Amount}}{\text{Useful Life}} \right) \times \% \text{ State Share} \right] + (\text{Annual Ongoing Cost} \times \% \text{ State Share}) = \text{Annual Prorated Cost}$$

Budget Line Items	Budget Amount (1st Year Cost)	Useful Life (Years)	% State Share	Annual Ongoing Cost (After 1st Year)	% State Share	Annual Prorated Cost
Agency Staff	62,500	4	100%	0		15,625
Software	550,000	4	100%	45,000	100%	182,500
Hardware	7,500	3	100%	0		2,500
Training	0			0		0
Facilities	0			0		0
Professional Services	0			0		0
ITE Services	5,000	4	100%	4,000	100%	5,250

Supplies, Maint, etc.	0			0		0
Other	0			0		0
Totals	625,000			49,000		205,875

B. Spending plan

Explain how the funds will be allocated.

All funds will be allocated in the first year of the project. The boards will purchase the hardware required, which includes the database server and a separate, redundant server for data caching. Exact specifications will be determined based on program and functional needs. Agency staff includes one person from each board to serve as project manager to assist in planning, design, and testing of the system to meet the specific business needs of that board. Employee salaries will be paid by board revenue generated from license fees. There may be some costs to configure the project to work with the state’s payment engine and to meet enterprise security standards. After implementation, there will also be a fee by ITE for web hosting. The exact amount of funds needed for software and implementation of the product will be determined through issuance of an RFP and competitive bid process. If the successful bid is for a larger amount than what is budgeted, the boards will absorb the additional costs.

C. Tangible and/or Intangible Benefits

Respond to the following and transfer data to the ROI Financial Worksheet as necessary:

1. Annual Pre-Project Cost - This section should be completed only if state government operations costs are expected to be reduced as a result of project implementation.

Quantify actual state government direct and indirect costs (personnel, support, equipment, etc.) associated with the activity, system or process prior to project implementation.

Describe Annual Pre-Project Cost:

Annual pre-project costs include the cost for the dental board to hire temporary staff each renewal season to assist in mailing renewals, opening returning renewals, and entering information to the database for returned renewals. The board typically hires 1-2 temporary staff for approximately 10 weeks each renewal season.

If the boards do not secure a replacement database, they will be forced to spend money to secure support and needed updates for the existing database system. As the current system is comprised of three uniquely customized databases for each board, any modifications will incur substantial costs. In 2007, the nursing board issued an RFP to provide support and 18 system modifications to ensure continued functionality of their program. The winning bid was for \$91,115 for 18 specific modifications and \$45,600 for ongoing support for the nursing board alone. Without funding for the proposed project, each of the board will need to obtain a similar contract for ongoing support.

Quantify Annual Pre-Project Cost:

The cost for the dental board to hire temporary staff each renewal season is approximately \$10,000. The cost for support of the existing database for all three boards, based on the rate of the nursing board’s existing contract of \$45,600, would be \$136,800. Additional costs would be incurred to make other necessary database changes, but that has not been quantified here. The cost for the nursing board’s 18 changes to the current system is included, however, as that is an expense they cannot defer.

	State Total
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FTE Cost(salary plus benefits):	\$10,000.00
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	\$136,800.00
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	\$91,115.00
Total Annual Pre-Project Cost:	\$237,915.00

2. Annual Post-Project Cost - This section should be completed only if state government operations costs are expected to be reduced as a result of project implementation. **Quantify actual state government direct and indirect costs** (personnel, support, equipment, etc.) associated with the activity, system or process after project implementation.

Describe Annual Post-Project Cost:

With online renewal for the dental board, temporary staff will no longer be required to mail the paper renewals, open thousands of renewals, and manually enter information. The FTE cost would be eliminated in this category. However, the boards would have to pay a licensing, support, and maintenance fee for the new database. The exact cost will be based on the package implemented.

Quantify Annual Post-Project Cost: Most of the vendors that presented information to the boards during the Request for Information phase of the project, charge a percent of the licensing fee on an annual basis. The estimate below is based on the high end of the preliminary quotes, or 20% of licensing fees for each of the three boards. The highest estimate received was for approximately \$45,000 for all three boards. Other costs include fees charged by ITE for web hosting, estimated at \$4,000 per year.

	State Total
FTE Cost(salary plus benefits):	\$0.00
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	\$45,000.00
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	\$4,000.00
Total Annual Post-Project Cost:	\$49,000.00

3. Citizen Benefit - Quantify the estimated annual value of the project to Iowa citizens. This includes the "hard cost" value of avoiding expenses ("hidden taxes") related to conducting business with State government. These expenses may be of a personal or business nature. They could be related to transportation, the time expended on the manual processing of governmental paperwork such as licenses or applications, taking time off work, mailing, or other similar expenses. As a "rule of thumb," use a value of \$10 per hour for citizen time.

Describe savings justification:

The value of a citizen hour used in these calculations varies, depending on the profession. According to the 2006 Iowa Factbook, the median household income in Iowa in 2004 was around \$43,000. The average hourly wage for a dental hygienist is \$29.96, while a general dentist has an average hourly wage of \$70.85. A general practice physician earns about \$72.89 on average, with specialists in both dental and medical professions earning significantly more per hour on average. Salary figures for nurses and dental assistants show that they earn closer to the median wage. Taking into account these differences, the boards are conservatively estimating the value of a healthcare professional hour at \$25 per hour.

The dental board has about 8,800 licenses and permits of which about half renew each year, about 4,400 renewals. The medicine and nursing boards have more than a 90% utilization rate for online renewals and the dental board expects the same response rate. At a rate of one hour saved per health professional, the citizen savings for online dental renewals would be \$99,000 per year (4,400x90% x\$25/hr x 1hr). In addition, renewals must now be sent via the mail, incurring postage expenses. At a rate of \$.41 for first class mail, 3,960 online renewals each year would result in citizen postage savings of \$1,465.

The three boards issue new licenses/registrations/permits to about 5,830 professionals each year. The applications are complex and time-consuming, with common errors requiring additional correspondence between the applicant and board office that would be avoided with an online application, saving applicants additional time. If 90 percent of these individuals applied online, each applicant would save approximately 2 hours per application. At a rate of \$25 per hour per professional, 2 hours saved would result in citizen savings of \$262,350 for online license applications. Postage on applications that would not have to mailed is conservatively figured at \$.41 each times 5,250 online applications, for a savings of \$2,153.

Additional citizen savings can be expected in the time and expense currently incurred from having to wait to contact the boards during normal business hours to check on the status of an application, verify a license, or request other services via the mail with a check or money order. Those figures have not been included in the estimate.

Transaction Savings	
Number of annual online transactions:	3,960/5,250
Hours saved/transaction:	1 hr / 2 hrs
Number of Citizens affected:	1
Value of Citizen Hour	\$25
Total Transaction Savings:	\$361,350
Other Savings (postage)	\$3,618
Total Savings:	\$364,968

4. Opportunity Value/Risk or Loss Avoidance - Quantify the estimated annual non-operations benefit to State government. This could include such items as qualifying for additional matching funds, avoiding the loss of matching funds, avoiding program penalties/sanctions or interest charges, avoiding risks to health/security/safety, avoiding the consequences of not complying with State or Federal laws, providing enhanced services, avoiding the consequences of not complying with enterprise technology standards, etc.

Response:

The boards urgently need to move to a new system. If something would happen to the one person at NIC who knows the system or if the current system were to have a catastrophic failure, the boards could be left unable to verify license status for healthcare providers, issue new licenses, or renew licenses, which would have serious consequences for public health and safety. The boards would incur substantial costs to fix the system on an emergency basis.

If the proposed project is not implemented, the boards will be forced to expend money on updating the existing LicenSure systems. Due to the customized nature of the databases, substantial costs will be incurred. Each year the boards relied on the original design vendor to make necessary updates and enhancements to the system. Many of these changes ranged from simple updates (new signatures need to be added every time the board chair

changes) to complex configurations based on new legislation, for example. The nursing board recently contracted with a vendor to make 18 specific modifications to their database. The medicine and dental boards need similar annual changes. With no other basis for comparison and assuming that the length and complexity of the changes needed for the medicine and dental boards is similar to that of the nursing board, these boards would also have to spend approximately \$90,000 each for annual updates and modifications. This would result in ongoing costs of up to \$270,000 each year for all three boards combined. This also requires the boards to support a system that does not comply with enterprise database standards.

5. Benefits Not Readily Quantifiable - List and summarize the overall non-quantifiable benefits (i.e., IT innovation, unique system application, utilization of new technology, hidden taxes, improving the quality of life, reducing the government hassle factor, meeting a strategic goal, etc.).

Response:

It is anticipated that physicians alone will be able to go to work at least one week sooner through use of an online license application. If 600 physicians who seek permanent licenses each year can go to work one week earlier and be paid at a modest rate of \$60 per hour, their gross income for that week alone would be \$1,440,000. The direct recipients are 600 Iowa licensed physicians, 116 hospitals, many clinics and third party payors. Indirectly, the citizens of Iowa will benefit when physician care is available sooner and when more taxes are generated for the General Fund.

The new system also promises to reduce the government hassle factor:

- Online licensure applications that are interactive with applications will be a boon to the applicants because they will be more user friendly than paper applications, will save substantial time, and all of the required fields will be answered, which does not always happen with paper applications. Plus, the applicants will be able to watch the progress of their application review without corresponding with board staff.
- Physicians and nurses who renew their licenses online are highly pleased with the speed of completing the renewal, the ability to pay by credit card, and instant confirmation that their renewal has been processed. The dental board expects similar positive feedback.
- Citizens will be pleased to find online information about health professionals that they must now request in writing.
- Those licensees who are being monitored for disciplinary action and all of those who report on these individuals will be grateful for a reminder that a report is due and that it can be submitted online.

The benefits of moving to a COTS product also cannot be readily quantifiable. The nursing board and medicine board now both have experience with two different attempts to develop a customized database. These attempts have resulted in considerable time, energy, and expense (lost employee time and salaries) without success due to vendor problems. The benefit of utilizing vendors with experience in licensure software and that utilize a product that can be readily configured will result in savings in terms of staff time and productivity that has been lost with previous failed attempts.

**[This section to be scored by application evaluator.]
Evaluation (15 Points Maximum)**

- The financial analysis contains several questionable entries and provides minimal financial benefit to citizens (0-5 points).
- The financial analysis seems reasonable with few questionable entries and provides a moderate financial benefit to citizens (6-10 points).
- The financial analysis seems reasonable with no problem areas and provides maximum financial benefit to citizens (11-15).



ROI Financial Worksheet	
A. Total Annual Pre-Project cost (State Share from Section II C1):	\$237,915
B. Total Annual Post-Project cost (State Share from Section II C2):	\$49,000
State Government Benefit (= A-B):	\$188,915
Annual Benefit Summary:	
State Government Benefit:	\$188,915
Citizen Benefit:	\$364,968
Opportunity Value or Risk/Loss Avoidance Benefit:	\$270,000
C. Total Annual Project Benefit:	\$823,883
D. Annual Prorated Cost (From Budget Table):	\$205,875
Benefit / Cost Ratio: (C/D) =	4.00
Return On Investment (ROI): ((C-D) / Requested Project Funds) * 100 =	112.37%

Appendix A. Auditable Outcome Measures

For each of the following categories, list the auditable metrics for success after implementation and identify how they will be measured.

1. Improved customer service

- # and % of total online license applications submitted
- # and % of total online renewals submitted (dental)
- # of on-line verifications completed
- % of customers surveyed who were satisfied with the new services

2. Citizen impact

- # and % of total online license applications submitted
- # and % of total online renewals submitted (dental)
- # of on-line verifications completed
- # of other online transactions completed and paid for electronically

3. Cost Savings

- # and % of total online license applications submitted
- # and % of total online renewals submitted (dental)
- # of online verifications completed

4. Project reengineering

- # and % of total on-line renewals submitted (dental)
- # of on-line verifications completed
- # of disciplinary actions downloaded
- # and % of total online financial transactions submitted
- # of web hits for verifications of licenses

5. Source of funds (Budget %)

Financial records for software, hardware, and ITE services

6. Tangible/Intangible benefits

- # and % of total on-line renewals submitted (dental)
- # of on-line verifications completed
- # of disciplinary actions downloaded
- # and % of total online financial transactions submitted
- # of web hits for verifications of licenses